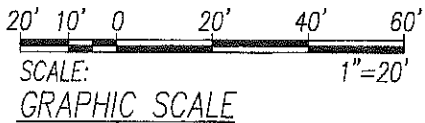
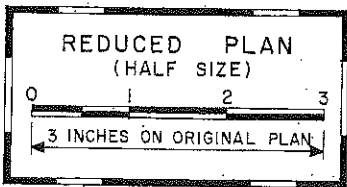
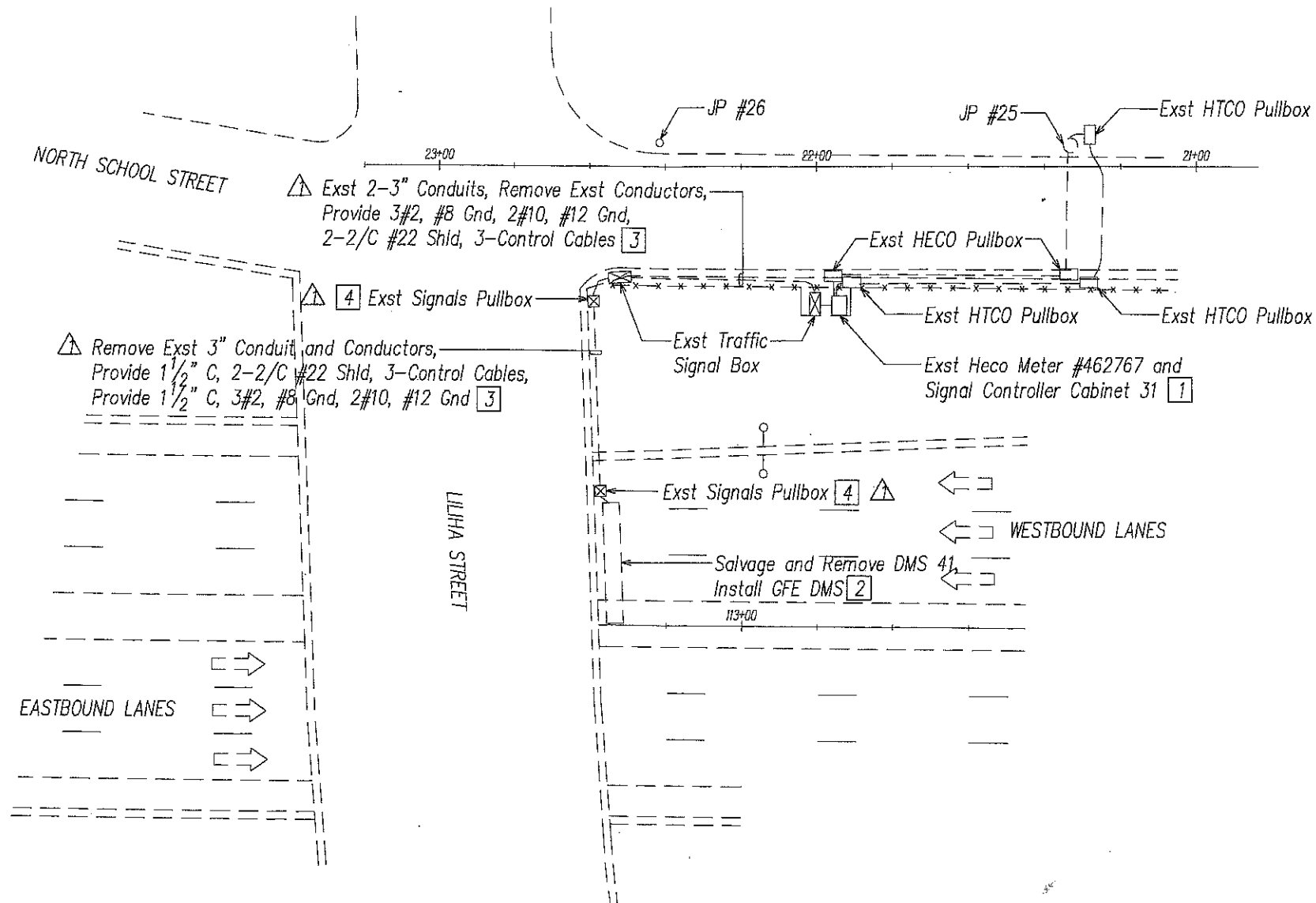


FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-0300(117)	2009	23	42

△ NOTES:

- 1 Replace Exist Sign Controller Cabinet with New Nema 4X Enclosure.
- 2 Mount New DSL Modem in New GFE DMS.
- 3 Provide Power Conductors in Separate Conduit From Communications and Control Cables.
- 4 Penetrate Exist Pullbox to Terminate Conduits.



LILIHA DMS ELECTRICAL PLAN
SCALE: 1"=20'



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△ NO.	DATE	REVISION
△	04/01/10	Revised Notes, Revised Conduit and Wire/Cable Callouts

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

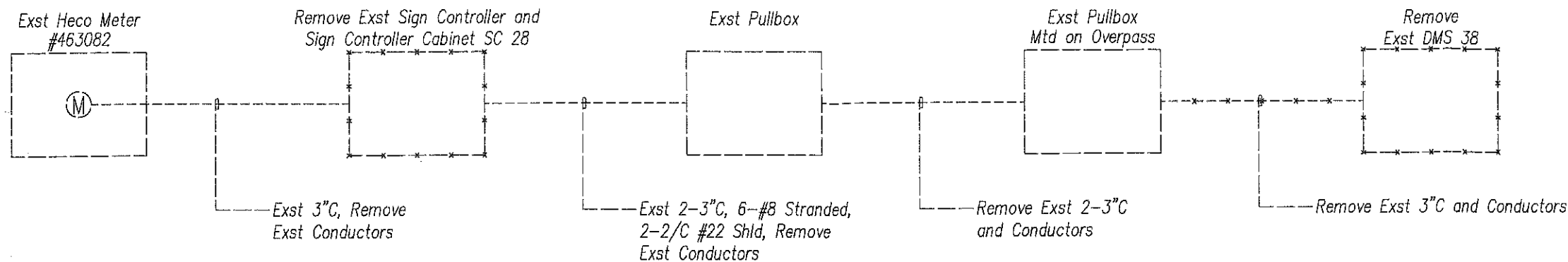
**LILIHA DMS
ELECTRICAL PLAN**

FREEWAY MANAGEMENT SYSTEM PHASE 1B, TRAVELER INFORMATION
SYSTEM, UNIT 4B: DYNAMIC MESSAGE SIGN INSTALLATION
F.A.P. NO. IM-0300(117)

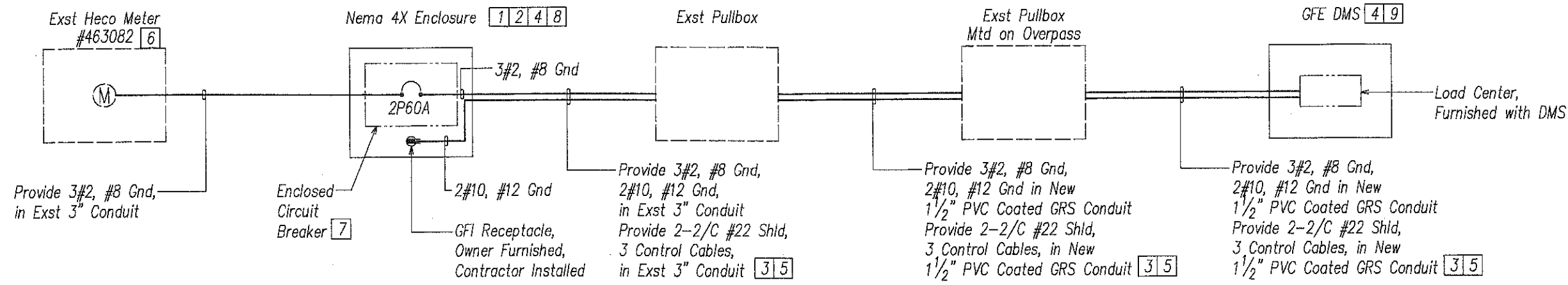
SCALE: AS NOTED DATE: APRIL 2010

SHEET No. E-2 OF 4 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-0300(117)	2009	24	42



KAAMILO DMS DEMOLITION ONELINE DIAGRAM



KAAMILO DMS ONELINE DIAGRAM

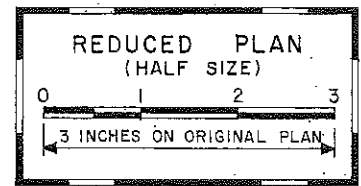
NOTES:

- Mount New Nema 4X Enclosure onto Existing Concrete Pad.
- Provide Provisions for Mounting 19" Rack Mounted Equipment. Provide Pull Out Shelf for the Placement of a Portable Laptop During Maintenance.
- Provide Power Conductors in Separate Conduit From Communications and Control Cables.
- Contractor to Install Control Cables. Leave 10 Feet of Excess Cable in the Nema 4X Enclosure and 10 Feet of Excess in the Sign. Coordinate with Sign Manufacturer for Termination of Control Cables.
- Use 24 AWG 4-Pair Shielded 100 Ohm Cable (Manhattan 3422 or Belden 8104) For All Control Cables.

- Contractor Shall Coordinate Work with HECO Inspector a Minimum of 5 Working Days Prior to Start of Work.
- Provide 2P60A, 120/240V, 1 Ph, 3W, Nema 1 Enclosed Circuit Breaker. Mount Enclosed Circuit Breaker in the Nema 4X Enclosure.
- Contractor Shall Install Owner Furnished Pole Cabinet Components in the Nema 4X Enclosure. Mount Owner Furnished Pole Cabinet Components to 19" Rack.
- Contractor Shall Install Owner Furnished DSL Modem in GFE DMS.

GENERAL NOTES:

- Dashed Lines Denote Existing Conditions. Solid Lines Denote New Work.
- Contractor Shall Coordinate with the Sign Manufacturer and the Sign Installation Guide for the Installation and Commissioning of the Sign and Pole Cabinet Components.



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HIGHWAYS DIVISION

KAAMILO DMS ONELINE DIAGRAMS

FREEWAY MANAGEMENT SYSTEM PHASE 1B, TRAVELER INFORMATION

SYSTEM, UNIT 4B: DYNAMIC MESSAGE SIGN INSTALLATION

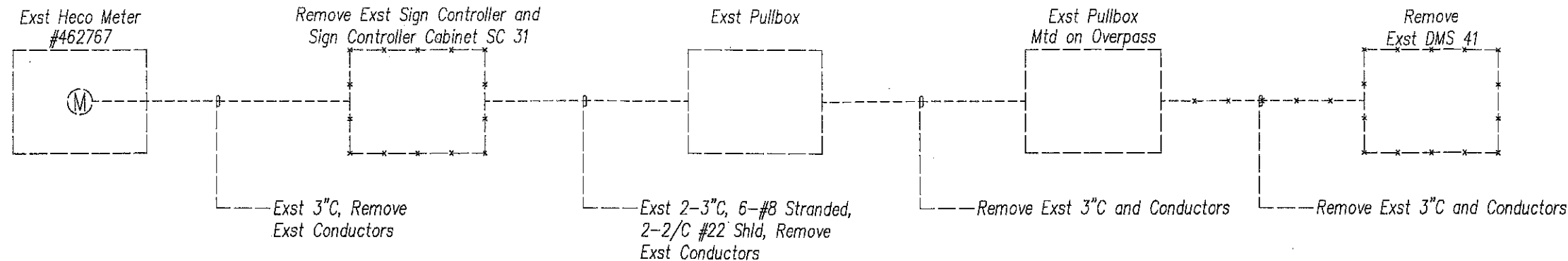
F.A.P. NO. IM-0300(117)

SCALE: NONE DATE: APRIL 2010

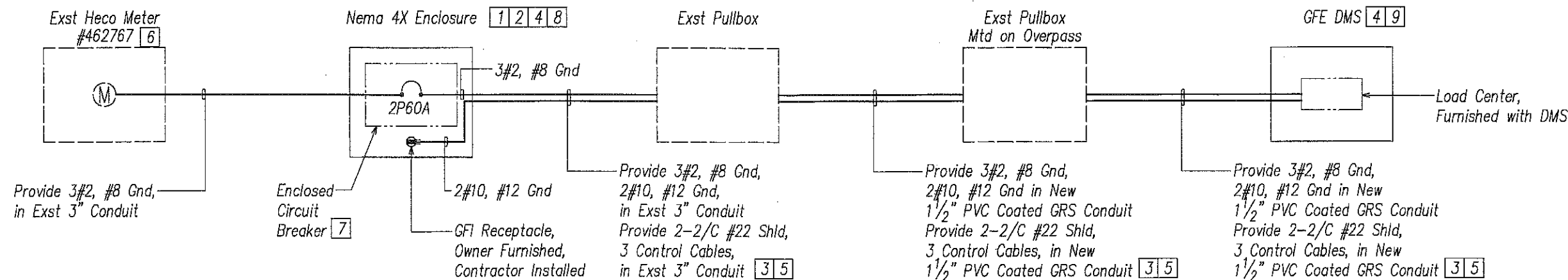
SHEET No. E-3 OF 4 SHEETS

NO.	DATE	REVISION
1	04/01/10	Added Notes, Revised Oneline Diagrams

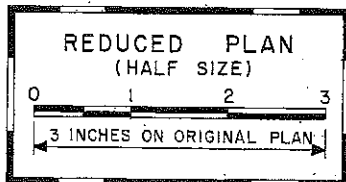
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-0300(117)	2009	25	42



△ LILIHA DMS DEMOLITION ONELINE DIAGRAM



△ LILIHA DMS ONELINE DIAGRAM



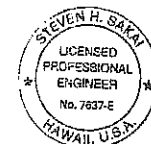
△ NOTES:

- Mount New Nema 4X Enclosure onto Existing Concrete Pad.
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△ GENERAL NOTES:

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- Contractor Shall Coordinate with the Sign Manufacturer and the Sign Installation Guide for the Installation and Commissioning of the Sign and Pole Cabinet Components.



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NO.	DATE	REVISION
△	04/01/10	Added Notes, Revised Oneline Diagrams

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LILIHA DMS ONELINE DIAGRAMS

FREWAY MANAGEMENT SYSTEM PHASE 1B, TRAVELER INFORMATION
SYSTEM, UNIT 4B: DYNAMIC MESSAGE SIGN INSTALLATION
F.A.P. NO. IM-0300(117)
SCALE: NONE DATE: APRIL 2010
SHEET No. E-4 OF 4 SHEETS